

**Before the
Federal Communications Commission
Washington, D.C. 20554**

In re Application of)	
)	
Educational Media Foundation)	File No. BPFT-19981021TF
)	Facility ID No. 91916
For a New Educational FM Translator)	
Station at New Albany, Indiana)	

MEMORANDUM OPINION AND ORDER

Adopted: March 23, 2004

Released: March 25, 2004

By the Commission:

1. The Commission has before it an Application for Review filed June 16, 2000, by Kentucky Public Radio, Inc. ("KPR").¹ KPR requests review of a May 18, 2000, Mass Media Bureau decision ("Staff Decision") denying a petition to deny filed by Louisville and Jefferson County Library Advisory Commission, Louisville Free Public Library ("LFPL")² and granting the captioned application of Educational Media Foundation ("EMF") for a new FM translator station at New Albany, Indiana.³ Also before the Commission is KPR's June 16, 2000, Motion for Stay.⁴ For the reasons set forth below, we dismiss as moot the Motion for Stay and deny the Application for Review.

2. **Background.** Section 74.1204(a) of the Commission's rules provides, in pertinent part, that a translator application will not be accepted for filing if the proposed operation would involve overlap of its predicted interference contour and the protected contour of an existing full-service FM station. However, subsection (d) of the rule provides that:

[A]n application otherwise precluded by this section will be accepted if it can be demonstrated that no actual interference will occur due to intervening terrain, lack of population or such other factors as may be applicable.

The 100 dBμ interference contour of EMF's application lies entirely within the 60 dBμ protected contour of second-adjacent-channel Station WFPL(FM), Louisville, Kentucky. EMF sought to demonstrate, by use of undesired-to-desired ("U/D") signal strength ratio interference prediction methodology,⁵ that the

¹ Educational Media Foundation filed an opposition on July 3, 2000, and KPR a reply on July 14, 2000.

² KPR acquired WFPL(FM) from LFPL on July 2, 1999, pursuant to assignment application No. BALED-19990211EB. The applicant for review is referred to herein as "KPR."

³ See *Letter to Fisher Wayland Cooper Leader & Zaragoza LLP*, Ref. No. 1800B3 (Aud. Serv. Div., May 18, 2000). EMF seeks to rebroadcast primary Station KXRD(FM), Victorville, California.

⁴ EMF filed an opposition to the motion on June 23, 2000.

⁵ Under the U/D signal strength ratio methodology accepted by the staff in this case, interference is predicted to occur between two stations operating on second-adjacent channels in areas where the "undesired" (or "interfering") signal is at least 40 dB greater than the "desired" (or "protected") signal. See 47 C.F.R. § 74.1204(a)(3).

actual area of interference within WFPL(FM)'s protected contour would be relatively small and that it contained no population. KPR contended below that EMF's proposal would result in prohibited contour overlap with WFPL(FM) in violation of Section 74.1204(a).

3. The staff rejected KPR's argument and accepted EMF's signal strength ratio showing, stating that it routinely accepts translator applications utilizing such methodology with respect to second- and third-adjacent-channel stations.⁶ The staff calculated the relevant signal strength ratios and determined that interference to WFPL(FM) is predicted only at locations where the signal strength of the translator would be at least 138 dBμ⁷ and that the area within this contour is unpopulated. Accordingly, it concluded that EMF's application complied with subsection (d).⁸

4. On review, KPR argues that the staff, by utilizing the signal strength ratio methodology, improperly changed a Commission rule and that it inappropriately cited a staff level decision, the *Garziglia Letter*, as precedent. KPR asserts that, in predicting translator interference to a full service station, the staff is obliged to follow the Commission's engineering standards set forth in Section 74.1204. KPR also argues that the current translator rules are intended to conserve Commission and applicant resources by eliminating case-by-case "subjective" determinations of predicted interference.⁹ It contends that the staff substituted its judgment for that of the Commission when it considered EMF's signal strength ratio showing. According to KPR, the staff should have relied on the standards set forth in subsection (a) of the rule and determined that this overlap area is, in fact, populated. KPR further argues that, despite the staff's assertion that it routinely accepts U/D signal strength ratio calculations to demonstrate compliance with subsection (d), the Commission never authorized the staff to utilize this "alternative method."

5. **Discussion.** We recently addressed and approved the staff's practice of permitting translator applicants to use the U/D signal strength ratio methodology to demonstrate that no actual interference will occur due to "lack of population" under Section 74.1204(d).¹⁰ For the reasons set forth in *Living Way*, we reject KPR's argument that the staff's reliance on the ratio methodology in this case departed from established Commission policy. Moreover, KPR's argument regarding lack of delegated authority is now

⁶ The Staff Decision cited *Letter to John F. Garziglia, Esq.* re: New FM Translator, Manahawkin, New Jersey, Ref. No. 1800B3-JDB (Aud. Serv. Div., Sept. 26, 1996) (the "*Garziglia Letter*") as an example of this policy.

⁷ EMF proposes a 10-Watt translator facility. Its 138 dBμ contour would extend 2.6 meters from the transmitting antenna. WFPL(FM) operates with an effective radiated power of 21 kW.

⁸ Subsequent to the Staff decision, the Commission modified the second adjacent channel NCE contour overlap standard, from +20 dB to +40 dB, to conform commercial and NCE protection standards. See *Streamlining of Radio Technical Rules in Parts 73 and 74 of the Commission's Rules*, 15 FCC Rcd 21,649, 21,669 (2000) (amending 47 C.F.R. §§ 73.509 and 74.1204). Thus, under current rules, interference would be predicted to occur at locations where the signal strength of the translator would be at least 158 dBμ. Application of this standard results in a very slightly *smaller* interference area in this case and does not in any way change the underlying staff analysis.

⁹ See *Amendment of Part 74 of the Commission's Rules Concerning Translator Stations*, 5 FCC Rcd 7271 (1990) ("*Translator R&O*").

¹⁰ See *Living Way Ministries, Inc.*, 17 FCC Rcd 17054, 17056 (2002) ("when demonstrating that 'no actual interference will occur due to . . . other factors' pursuant to Section 74.1204(d), an applicant may use the undesired-to-desired signal ratio method") ("*Living Way*"), citing with approval *Letter to Christine J. Newcomb, Esq.* re: New FM Translator, Clive, Iowa, Ref. No. 1800B3-BHW (Aud. Serv. Div., Apr. 26, 2001) and the *Garziglia Letter*.

moot as a result of the Commission's explicit approval of this practice in *Living Way* and its reaffirmation of this practice here.

6. KPR contends that the U/D signal strength ratio methodology is "technically flawed" and "unreliable" inside a station's protected service (60 dBμ) contour at the high signal levels involved in this case. It maintains that, at these signal strengths -- 138 dBμ-undesired/118 dBμ-desired -- many receivers may be unable to successfully reject an undesired signal. KPR also alleges that EMF's engineering analysis ignores the "antenna elevation patterns" of the two stations, a factor that can significantly affect the signal strength level of the stations. It contends that topography, local obstructions, and man-made structures can attenuate signals or produce signal reflections that can affect listeners.

7. EMF submits its own engineering statement, arguing that, while there may be some unpredictability in high signal-level areas (due to antenna design, reradiation from nearby objects, etc.), "these variations are usually reasonable and not unlimited."¹¹ Practically speaking, it states, "EMF's 10-Watt signal will not cause destructive interference to WFPL(FM)'s 21,000-Watt signal."¹²

8. We reject KPR's contention. Although the signal strength ratio methodology cannot be used to predict translator interference with certainty, it nevertheless is a useful and reliable tool for determining areas where actual interference is likely to occur for translator stations proposing to locate within a full-service station's protected contour. In certain contexts, such as the modification of "grandfathered" short-spaced FM stations,¹³ the Commission has *required* use of the signal strength ratio methodology to predict an interference area within a station's protected contour.¹⁴ Given the power disparity between EMF's proposed 10-Watt translator facility and WFPL(FM)'s 21 kW operation and the proximity of the stations' transmitter sites -- they are separated by only 1.2 kilometers -- we believe that the "flaw" identified by KPR will not be manifested.¹⁵ We also believe that the signal strength ratio methodology, in fact, will provide a more accurate prediction of the likely interference area than a strict application of the contour overlap standard. The staff has granted hundreds of applications based on lack of population within a U/D ratio method-predicted interference area. *Bona fide* interference complaints following the initiation of operations are extremely rare, particularly with regard to translators licensed on second or

¹¹ EMF Opposition, Engineering Statement of Sam Wallington, at 2. In any event, for the EMF New Albany translator's interfering signal even to reach ground level, the undesired-to-desired signal strength ratio would need to vary from that predicted by 37 dB, which is "unlikely in actual practice." EMF observes that, regardless of the alleged unpredictable interaction of undesired and desired signals in radio receivers at high signal levels, EMF has demonstrated that the U/D ratio area is unpopulated, and thus there will be no receivers in the predicted interference area.

¹² *Id.*

¹³ Grandfathered short-spaced FM stations are stations that do not meet the minimum spacing requirements set forth in 47 C.F.R. Section 73.207 but which were authorized prior to the adoption of the FM Table of Allotments and spacing standards, *i.e.*, prior to November 16, 1964.

¹⁴ See, e.g., *Grandfathered Short-Spaced FM Stations*, 12 FCC Rcd 11840, 11843, ¶ 7 (1997) (ratio method most appropriate method of determining areas of interference for grandfathered short-spaced FM stations where contour overlap already existed) referencing *Board of Education of the City of Atlanta (WABE(FM))*, 11 FCC Rcd 7763, 7764, note 1 (1996). See also 47 C.F.R. § 73.213(a).

¹⁵ In this context, second- and third-adjacent channel interference is predicted to occur only where the "undesired" FM translator signal is at least 40 dB stronger than the "desired" signal. Thus, interference will *never* be predicted to occur if a low power FM translator is co-located with a second- or third-adjacent channel full service station operating at a higher authorized power.

third-adjacent-channels. Critically, the rules fully protect WFPL(FM) from “actual interference”¹⁶ following the commencement of translator station operations. In such circumstances, the translator station must remedy the interference or cease operations.¹⁷ Thus, accepting the signal strength ratio methodology in this context will serve two significant Commission goals: providing translator applicants with site selection flexibility and preventing translator interference to full-service FM facilities.

9. Finally, KPR, in its motion, requests a stay of the effective date of the staff action. In light of our determination on the merits of the application for review, we will dismiss that motion as moot.

10. Accordingly, in light of the above, IT IS ORDERED that the Application for Review filed on June 16, 2000 by Kentucky Public Radio, Inc. IS DENIED, and its Motion for Stay IS DISMISSED.

FEDERAL COMMUNICATIONS COMMISSION

Marlene H. Dortch
Secretary

¹⁶ Section 74.1203(d) states that “interference” will be considered to occur “whenever reception of a regularly used signal is impaired by the signals radiated by the FM translator . . . regardless of the quality of such reception, the strength of the signal so used, or the channel on which the protected signal is transmitted.”

¹⁷ See 47 C.F.R. § 74.1203.